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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,489	03/18/2005	Ronaldus Maria Aarts	NL 020901	6386

24737 7590 04/05/2007
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

LAO, LUN S

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/528,489

Applicant(s)

AARTS ET AL.

Examiner

Lun-See Lao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. This action is in response to the applicant's response filed on 01-17-2007.

Claims 1-7 are pending.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.

(b) CROSS-REFERENCE TO RELATED APPLICATIONS.

(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR
DEVELOPMENT.

(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.

(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A
COMPACT DISC.

(f) BACKGROUND OF THE INVENTION.

(1) Field of the Invention.

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(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.

(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).

(i) DETAILED DESCRIPTION OF THE INVENTION.

(j) CLAIM OR CLAIMS (commencing on a separate sheet).

(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A

“Sequence Listing” is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required “Sequence Listing” is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

—A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tucker (US PAT. 5,742,689).

Consider claim 7, Tucker teaches a media system (see fig.4) for generating at least one output (30) signal from a first set of sound signals (7) from at least one input

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(1) signal from a second set of sound signals (2) having a related second set of Head Related Transfer Functions (11), said media system comprising:

-means (11) for determining for each signal in the second set of sound signals, a weighted (such as, 16-19 scaling factor) relation comprising at least one signal from a third set of intermediate sound signals (58) and at least one weight value (16, scaling factor);

-means (10) for determining a first set of Head Related Transfer Functions based on the second set of sound signals (11), the second set of Head Related Transfer Functions and the weighted relation; and

means (11) for transferring at least one signal from the third set of intermediate sound signals (58) by means (11) of at least one HRTF from said first set of Head Related Transfer Functions in order to generate at least one output (30) signal belonging to said first set of sound signals (10). See col. 4, line 45 - col. 5, line 35; col. 7, lines 10-15, 36-47; col. 9, lines 30-54.

Consider claim 1, it is a method claim corresponding to system claim 7. See claim 7 for rejection.

Consider claims 2-3, Tucker teaches that the step of determining for each signal, i in the second set of sound signals determines CH_i (see fig.4, 30) $= \alpha_i \cdot L + \beta_i \cdot R$, wherein α_i and β_i each is the weight value (see fig.4 (16-19, scaling factor)), and wherein L and R each is a signal from said third set of intermediate sound signals (see col. 4 line 45- col. 5 line 35); and the step of determining for each signal determines $CH_{i1} = \alpha_{i1} \cdot M$ and $CH_{i2} = \alpha_{i2} \cdot M$, wherein α_{i1} and α_{i2} each is the weight value (see fig.4, (16-19

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scaling factor), and wherein CHI_1 and CHI_2 each is a signal from said third set of intermediate sound signals (see col. 7 line 1-35).

Consider claims 4-6, Tucker teaches that the media system is a TV, a CD player, a DVD player, a Radio, a display, an amplifier, a headphone or a VCR (see col. 3 lines 30-44); and a computer system (reads on, programmed digital signal processor, ROM and database) for performing the method according to claim 1 (see fig. 4 and see col. 4 line 45-col. 5 line 35); and a computer program product comprising program code means stored on a computer (reads on, programmed digital signal processor, ROM and database) readable medium for performing the method of claim 1 when the computer program is run on a computer (see fig. 4 and see col. 4 line 45-col. 5 line 35).

Response to Arguments

5. Applicant's arguments filed 01-17-2007 have been fully considered but they are not persuasive.

Applicant argued that Tucker does not teach that the claimed limitation in which each signal in the second set of sound signals is determined by a weighted relation including at least one signal from a third set of intermediate sound signals and at least one weight value. Tucker does not teach that the HRTF processor 10 is based or determined, at least in part, on the HRTF processor 11. Tucker does not teach that a first set of HRTFs is determined, at least in part, from a second set of HRTFs, and that the first set of HRTFs are applied to at least one signal from a third set of intermediate sound signals to form at least one output signal. (Remarks, pages 7 and 8).

The examiner respectively disagrees. Tucker teaches (col. 4 line 45-col. 5 line 35) means (11) for determining for each signal in the second set of sound signals, a weighted (such as, 16-19 scaling factor) relation comprising at least one signal from a third set of intermediate sound signals (58) and at least one weight value (16, scaling factor). This teaching of Tucker meets the claimed limitation in which each signal in the second set of sound signals is determined by a weighted relation including at least one signal from a third set of intermediate sound signals and at least one weight value.

Tucker teaches means (10) for determining a first set of Head Related Transfer Functions based on the second set of sound signals (11), the second set of Head Related Transfer Functions and the weighted relation. This teaching of Tucker meets that the HRTF processor 10 is based or determined, at least in part, on the HRTF processor 11. Tucker teaches means (11) for transferring at least one signal from the third set of intermediate sound signals (58) by means (11) of at least one HRTF from said first set of Head Related Transfer Functions in order to generate at least one output (30) signal belonging to said first set of sound signals (10). This teaching of Tucker meets that a first set of HRTFs is determined, at least in part, from a second set of HRTFs, and that the first set of HRTFs are applied to at least one signal from a third set of intermediate sound signals to form at least one output signal. It is noted that in Tucker, the interactions of various sets of HRTFs are carried out through the operation of the HRTF database 63, as well as the ordering processor 64 and matching processor 58. Tucker collects and stores, in database 63, sets of HRTFs (both left and right configurations) from the listeners. Such HRTFs are subsequently selected and

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incorporated into the weighing/scaling processing to produce the output left and right values. See, for example, fig.s 4, 6c, col. 4, line 45 - col. 5, line 35; col. 7, lines 10-15, 36-47; col. 9, lines 30-54.

Therefore, applicant's arguments are not persuasive.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any response to this action should be mailed to:

Mail Stop ____ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

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P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

-If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See *L.S.*
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501
Date 03-30-2007


VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600